

中国野蝗属的分类研究及一新种记述

(直翅目:蝗总科:斑腿蝗科)

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摘要: 研究了分布于中国野蝗属的种类, 记述了一个新种, 即黑翅野蝗 *Fer nigripennis* sp. nov., 并提供了分种检索表。模式标本保存于陕西师范大学动物研究所昆虫标本室。

关键词: 蝗总科; 斑腿蝗科; 野蝗属; 分类; 中国

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A taxonomic study on the genus *Fer* Bolivar from China, with descriptions of one new species (Orthoptera: Acridoidea: Catantopidae)

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Abstract: This paper dealt with five species of the genus *Fer* Bolivar from China, including one new species, *Fer nigripennis* sp. nov. A key to all species of the genus was provided. All the specimens are kept in the Institute of Zoology, Shaanxi Normal University.

Key words: Acridoidea; Catantopidae; *Fer*; taxonomy; China

野蝗属 *Fer* 为 I. Bolivar 1918 年所建立的 (Bolivar, 1918), 模式标本为采自越南的绿翅野蝗 *Fer coeruleipennis* Bolivar, 在随后的多年中, 一直没有新增种类发表, 直到 1983 年尤其傲及黎天山报道了产自广西龙州的二斑野蝗 *Fer bimaculiformis* You et Li (尤其傲等, 1983); 黄春梅及夏凯龄 (1984) 报道了产自云南西双版纳地区的云南野蝗 *Fer yunnanensis* Huang et Xia; 郑哲民等 (1985) 报道了产自福建崇安的无斑野蝗 *Fer nonmaculiformis* Zheng, Lian et Xi; 蒋国芳及郑哲民 (1994) 报道了产自广西上思的广西野蝗 *Fer guangxiensis* Jiang et Zheng, 至此野蝗属共记录 5 种, 在我国均分布在南方地区。作者在整理中国野蝗属时, 除上述报道的 4 种外, 又发现 1 新种, 记述如下。

野蝗属 *Fer* Bolivar

Fer Bolivar, 1918, *Trab. Mus. Nac. Cienc. Nac.* (Zool.), No. 34: 8, 17; Willemse, 1921, *Zoolog*,

Meded. Leiden, 8: 21; Willemse, 1955, *Publ. Natuurh. Genoor. Limburg*, 8: 174–175; Hollis, 1975, *Bull. Brit. Mus. Nat. Hist. (Ent.)*, 31(6): 208; Zheng, 1985, *Acridoidea from YGSSN Regions*, 137; Zheng, 1993, *Acr taxonomy*: 72; Yin, Shi et Yin, 1996, *A Synonymic Catalogue of Grasshoppers and Their Allies of the World (Orthoptera: Caelifera)*, 292; Jiang et Zheng, 1998, *Grasshoppers and Locusts from Guangxi*, 74; Li et Xia, 2006, *Fauna Sinica, Insecta, Vol. 43, Orthoptera, Acridoidea, Catantopidae*, 37–38.

模式种: *Fer coeruleipennis* Bolivar, 1918.

体中型。头短于前胸背板; 头顶具明显的中隆线, 在复眼前具一横沟; 缺头侧窝; 侧面观, 颜面明显向后倾斜, 与头顶形成锐角形; 颜面隆起侧缘近平行, 纵沟明显或略明显。复眼卵形。触角丝状, 到达或不达前胸背板后缘。前胸背板圆柱状, 后缘钝角形、宽圆形或后缘中央具极小的凹口; 中隆线弱, 缺侧隆线; 3 条横沟均明显, 后横沟位于背板中后部; 侧片长大于高。前胸腹板突圆柱形, 直, 顶圆型。中胸腹板侧叶长宽相等或宽略大于长, 侧叶间

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中隔在雄性甚狭,在雌性较宽;后胸腹板侧叶在端部毗连或分开。前、后翅发达,到达后足股节的顶端,径脉域具有一列较密而平行的小横脉。后足股节上侧中隆线平滑,下膝侧片顶锐刺状;后足胫节端部之半的边缘节较扩大,具外端刺或外端刺不明显。雄性腹部末节背板具尾片或不具尾片。肛上板长三角形。尾须长圆锥形,顶尖,到达肛上板的后

缘。下生殖板短锥形,顶端钝。雌性产卵瓣直,具细齿。下生殖板长大于宽,后缘角形或圆型突出或后缘中央三角型突出。

全世界已知 6 种,除 1 种分布于越南外,其余 5 种分布于我国的广西、云南、福建和湖南等地区。生物学信息不详。

野蝗属分种检索表

- 1(8)后胸腹板侧叶在后端毗连;复眼较大,其纵径为眼下沟长度在 2 倍以上。
2(3)后足股节外侧具 2 个黑斑;中胸腹板侧叶间中隔长为宽的 2.7 倍..... 二斑野蝗 *Fer bimaculiformis* You et Li
3(2)后足股节外侧不具 2 个黑斑;中胸腹板侧叶间中隔长为宽的 4 倍以上。
4(5)后翅暗绿色..... 绿翅野蝗 *Fer coeruleipennis* Bolivar
5(4)后翅黑褐色或后翅烟色,基部淡蓝色。
6(7)雄性腹部末节背板后缘具小三角形尾片;头顶狭长,在复眼前到头顶顶端的长度明显大于复眼前最宽处;前胸背板后缘钝角形,中央具小凹口;前翅略不到达后足股节顶端;缺外端刺;后翅黑褐色;后足股节橙红带黄色.....
..... 黑翅野蝗 *Fer nigripennis* sp. nov.
7(6)雄性腹部末节背板后缘无尾片;头顶宽短,在复眼前的长度等于或小于复眼前最宽处;前胸背板后缘圆形;前翅超过后足股节顶端,具极小的外端刺;后翅烟色,基部淡蓝色;后足股节外侧上半部黄绿色,下半部黄色.....
..... 广西野蝗 *Fer guangxiensis* Jiang et Zheng
8(1)后胸腹板侧叶分开;复眼纵径为眼下沟长度的 2 倍以下。
9(10)前胸背板沟前区长度为沟后区长度的 1.6 倍;后翅淡绿色;后足胫节橄榄绿色..... 云南野蝗 *Fer yunnanensis* Huang et Xia
10(9)前胸背板沟前区长度为沟后区长度的 2 倍;后翅淡褐色;后足胫节黑色... 无斑野蝗 *Fer nonmaculiformis* Zheng, Lian et Xie

Key to the species of *Fer* Bolivar

- 1(8)Both metasternal lobes connected. Eyes larger, its longitudinal diameter more than 2 times of subocular furrows in length.
2(3)Outer side of hind femur with 2 black spots. Length of metasternal interspace 2.7 times its width.....
..... *Fer bimaculiformis* You et Li
3(2)Outer side of hind femur without black spots. Length of metasternal interspace more than 4 times its width.
4(5)Hind wing dark green..... *Fer coeruleipennis* Bolivar
5(4)Hind wing black brown or hind wing smoke color, basal part bluish.
6(7)The last abdominal tergite of male with furcula; vertex narrow and slender, its length distinctly longer than its width; posterior margin of pronotum with a small triangular breach in the middle; top of elytra not reaching the top of hind femur; external apical spine absent; hind wing black brown; hind femur orange red..... *Fer nigripennis* sp. nov.
7(6)The last abdominal tergite of male without furcula; vertex wide and short, its length equal or narrower than its width; posterior margin of pronotum rounded; top of elytra reaching over the top of hind femur; with very small external apical spine; hind wing smoke color, basal part bluish; hind femur yellowish green on upper half of the outer side and yellow on lower half.....
..... *Fer guangxiensis* Jiang et Zheng
8(1)Both metasternal lobes separated. Longitudinal diameter of eyes less than 2 times of subocular furrows in length.
9(10)Prozona 1.6 times as long as metazona in length; hind wing greenish; hind tibia olive green.....
..... *Fer yunnanensis* Huang et Xia
10(9)Prozona 2 times as long as metazona in length; hind wing brownish; hind tibia black.....
..... *Fer nonmaculiformis* Zheng, Lian et Xi

1. 二斑野蝗 *Fer bimaculiformis* You et Li 1983

Fer bimaculiformis You et Li, 1983, *Entomotaxonomia*, 5 (2): 173; Zheng, 1993, *Acritaxonomy*, 72; Jiang et Zheng, 1998, *Grasshoppers and Locusts from Guangxi*, 74–75; Li et Xia, 2006, *Fauna Sinica, Insecta*, Vol. 43, *Orthoptera, Acridoidea, Catantopidae*, 38–39.

观察标本:2 ♂ 3 ♀, 广西:龙州, 2002-09-20, 郑哲民采。

分布:广西。

2. 翅野蝗 新种 *Fer nigripennis* sp. nov.(图 1~4)

雄性：体中型。头顶狭长，向前突出，在复眼前缘到头顶顶端的长度明显大于其宽度，前缘圆形，具明显中隆线，复眼前具一横沟；缺头侧窝；侧面观，颜面倾斜，并微内曲，与头顶形成锐角形，颜面隆起狭，全长具纵沟，侧缘近平行；颜面侧隆线略弯曲。复眼长卵形，纵径为横径的 1.5 倍，为眼下沟长度的 2 倍。触角丝状，细长，超过前胸背板后缘。前胸背板圆柱状，前缘近平直，后缘钝角形，在顶端具一小凹口；中隆线低，明显，缺侧隆线 3 条横沟均切断中隆线，后横沟位于背板中后部，沟前区的长度为沟后区长度的 1.4 倍；前胸背板侧片长大于高，前后下角均

略钝角形。前胸腹板突柱状，直立，顶尖圆。中胸腹板侧叶长宽近相等，内缘内曲；中隔的长度大于最狭处宽的 4 倍。后胸腹板侧叶毗连。前、后翅发达，略不到达后足股节顶端，径脉域密具一系列平行小横脉。后足股节上侧中隆线平滑无细齿，下膝侧片顶锐刺状；后足胫节端半部略扩大，外侧具刺 8~9 个，内侧具刺 11 个，缺外端刺；跗节爪间中垫大，超过爪之顶端。鼓膜器发达。腹部末节背板具小三角形尾片。肛上板长三角形，侧缘较直，中部基半具纵沟。尾须细长锥形，顶尖，到达肛上板顶端。下生殖板短锥形，顶钝圆。

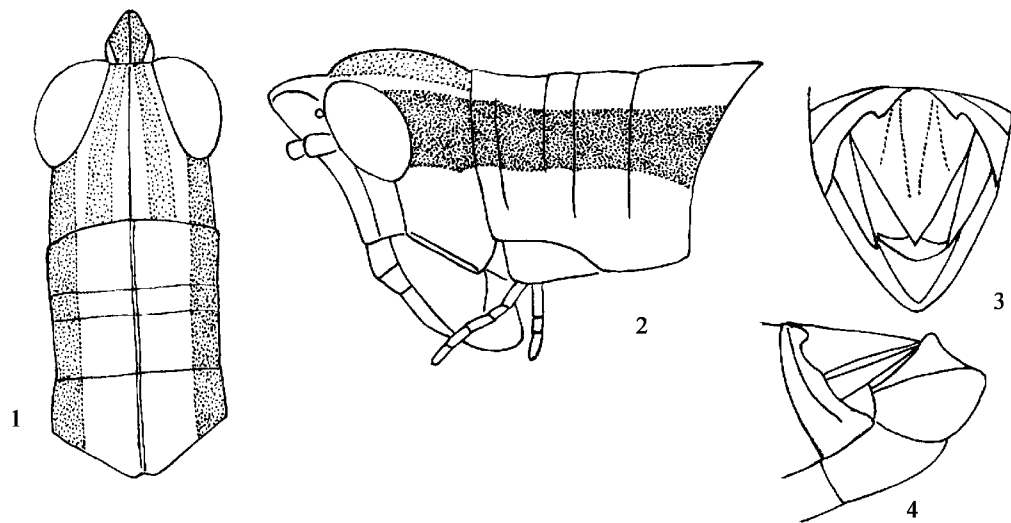


图 1~4 黑翅野蝗

Figs. 1-4 *Fer nigripennis* sp. nov.

1: 雄性头、前胸背板背面 Male, head and pronotum, dorsal view; 2: 雄性头、前胸背板侧面 Male, head and pronotum, lateral view; 3: 雄性腹端背面 Male, terminalis, dorsal view; 4: 雄性腹端侧面 Male, terminalis, lateral view.

体背面褐绿色。头部背面褐绿色，具 2 条黑褐色纵纹，中央具黑色中隆线；眼后带黑色；颜面及颊部柠檬黄色。复眼暗红褐色。触角基部 2 节黄色，其余褐绿色。前胸背板背面褐绿色，侧片上半部黑色，下半部柠檬黄色。中、后胸侧板柠檬黄色。前翅臀脉域褐绿色，其余部分黑色；后翅黑褐色。后足股节橙红带黄色，膝部红色。后足胫节蓝黑色，基部红色。

雌性：未知。

体长：♂ 29~30 mm；前胸背板长：♂ 5.2~6 mm；前翅长：♂ 20~21 mm；后足股节长：♂ 16.5~17 mm。

正模 ♂，湖南：郴州（莽山），620 m，2004-10-06，谢令德采；副模 1 ♂，同正模。

词源：种名以拉丁语 *nigri*-(黑色)及 *pennis*-(翅)为名。

该新种近似于广西野蝗 *Fer guangxiensis* Jiang et Zheng, 1994。主要区别见检索表。

3. 广西野蝗 *Fer guangxiensis* Jiang et Zheng, 1994

Fer guangxiensis Jiang et Zheng, 1994, *Journal of Guangxi Academy of Sciences*, 10(2): 34-35; Jiang et Zheng, 1998, *Grasshoppers and Locusts from Guangxi*, 75-76; Li et Xia, 2006, *Fauna Sinica, Insecta*, Vol. 43, Orthoptera, Acridoidea, Catantopidae, 39-40.

观察标本：1 ♂，广西：上思，1991-07-10，黎天山采。

分布：广西。

4. 云南野蝗 *Fer yunnanensis* Huang et Xia, 1984

Fer yunnanensis Huang et Xia, 1984, *Entomotaxonomia*, 6(2-3): 241; Zheng, 1985, *Acridoidea from YGSSN Region*, 137; Zheng, 1993, *Acritaxonomy*, 72; Yin, Shi

et Yin, 1996, A Synonymic Catalogue of Grasshoppers and Their Allies of the World (Oth. Caelifera), 282 ; Li *et* Xia, 2006, Fauna Sinica, Insecta, Vol. 43, Orthoptera, Acridoidea, Catantopidae, 40 – 41.

观察标本：1 ♂ 1 ♀，云南：勐腊，1986-08-11，郑哲民采；3 ♂ 2 ♀，云南：勐仑，1987-09-21，郑哲民采。

分布：云南。

5. 无斑野蝗 *Fer nonmaculiformis* Zheng, Lian *et* Xi, 1985

Fer nonmaculiformis Zheng, Lian *et* Xi, 1985, *Wuyi Science J.*, 5 : 5 – 6 ; Zheng, 1993, *Acritaxonomy*, 72 ; Yin, Shi *et* Yin, 1996, A Synonymic Catalogue of Grasshoppers and Their Allies of the World(Orthoptera : Caelifera), 292 ; Li *et* Xia, 2006, Fauna Sinica, Insecta Vol. 43, Orthoptera, Acridoidea, Catantopidae, 82 – 83.

观察标本：1 ♀，福建：崇安，1982-07-14，邹明权采。

分布：福建。

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Appendix : Brief description of new taxa

Fer nigripennis Zheng *et* Xie sp. nov. (Figs. 1 – 4)

This new species resembles *Fer guangxiensis* Jiang *et* Zheng, but differs in : 1) the last abdominal tergite of male with furcula ; 2) vertex narrow and slender, its length distinctly longer than its width ; 3) posterior margin of pronotum with a small triangular breach in the middle ; 4) top of elytra not reaching the top of hind femur ; 5) external apical spine absent ; 6) hind wing black brown ; 7) hind femur orange red.

Length of body : ♂ 29 – 30 mm ; length of pronotum : ♂ 5.2 – 6 mm ; length of elytra : ♂ 20 – 21 mm ; length of hind femur : ♂ 16.5 – 17 mm.

Holotype ♂, Hunan : Binzhou (Mangshan), 620 m, 25°5'N, 103°1'E, 2004- X -06, collected by XIE Ling-De.

Etymology : The specific name is derived from the Latin “ *nigri-* ” and “ *pennis* ”.